

What is claimed is:

1. A mold clamping apparatus comprising,

a base platen on which sets an injection mold is set;

5 a stationary platen which has a mold clamping cylinder;

said base platen and said stationary platen are connected by a tie bar, and are facing toward each other;

a movable platen which is positioned between said base platen and said stationary platen, in which said tie bar is inserted,

10 and which is connected to a mold clamping ram of said mold clamping cylinder;

said mold clamping cylinder has a cylinder portion of which the inner diameter at a lower end portion is smaller than the inner diameter of other portions of the lower end portion;

15 said mold clamping ram has a piston of which the outer diameter is capable to fit to the lower end portion of said cylinder;

a booster ram is inserted internally to said mold clamping ram;

a circulation device for pressure oil is provided to a side of said mold clamping cylinder;

a charge cylinder is provided to a side portion of said mold clamping cylinder;

25 said lower end portion of said mold clamping cylinder is communicated with a lower end portion of the charge cylinder; and

said mold clamping ram and a charge rod of said charge cylinder are connected with said movable platen, wherein

30 said mold clamping cylinders consist of a pair, have the mold clamping rams respectively, and are provided to said stationary platen on a left and a right side with leaving a space;

the charge cylinder is provided to said stationary platen

which is positioned between a pair of said mold clamping cylinders;

said movable platen is connected to a pair of said mold clamping rams;

- 5 a pair of said mold clamping cylinders include to make an operation of the mold clamping at two points simultaneously by sharing said charge cylinder.

2. The mold clamping apparatus according to claim 1,
10 wherein the circulation device comprises

a cylinder ;

circulation ports for pressure oil on upper and lower sides of said cylinder are bored, and supply and discharge ports are bored at the same level position of said circulation ports on
15 another side of the cylinder which is provided for said circulation ports;

a valve seat provided to an inside of the cylinder adjacent to an upper side of said supply and discharge ports;

a check valve which is held against the valve seat side by a
20 spring member;

a pilot oil circuit bored through a cover member on a lower end of said cylinder;

in the inside of said cylinder, a rod for a valve opening which has a piston at an end portion closer to said cover
25 member, and another end touches to said check valve;

a circulation pipe which is provided so as to communicate said circulation ports and circulation holes which are bored to a pair of said mold clamping cylinders;

said circulation device is set on said stationary platen at a
30 position between a pair of said mold clamping cylinders.